IN THE CLAIMS

Please substitute the following claims for the pending claims with the same numbers respectively:

Claim 1 (Original): A displacement gauge comprising:

a light emitting portion for emitting light to be projected onto a measurement subject;

an objective lens for receiving light emitted from said light emitting portion and projecting light onto said measurement subject;

an exciting portion for vibrating said objective lens along a first direction at a preset amplitude;

a position detector for detecting the position of said objective lens that is moved in said first direction;

a light diaphragm portion for passing a reflected light from said measurement subject;

a light receiving portion for receiving light passing through said light diaphragm portion;

a displacement operation portion for acquiring a detected position from said position detector at the moment when the light received amount of light received by said light receiving portion

is maximum, and calculating the displacement on said measurement subject based on said detected position;

an objective lens scan portion for moving said objective lens in a second direction orthogonal to said first direction; and

an operation processing portion for calculating the two dimensional displacement regarding said measurement subject, based on the measurement result of displacement at each measuring point, by moving said objective lens along said second direction by said objective lens scan portion to move a measuring point on said measurement subject in a predetermined amount of movement and measuring the displacement at plural measuring points.

Claim 2 (Original): The displacement gauge according to claim 1, wherein said objective lens scan portion moves said objective lens in a circular arc.

Claim 3 (Currently amended): The displacement gauge according to claim 2, wherein said displacement gauge further comprises an objective lens movement detection portion for detecting a position of said objective lens that is moved along the second direction by said objective lens scan portion, wherein said objective lens scan portion includes a servo motor for

moving said objective lens in a circular arc around a predetermined rotation axis, and said objective lens movement detecting portion includes a rotational angle sensor for detecting the rotational angle of said servo motor.

Claim 4 (Currently amended): The displacement gauge according to claim 2, wherein said displacement gauge further comprises an objective lens movement detection portion for detecting a position of said objective lens that is moved along the second direction by said objective lens scan portion, wherein said objective lens scan portion includes a voice coil for rotating said objective lens around a predetermined rotation axis, and said objective lens movement detecting portion includes a Hall element for detecting the movement of said voice coil.

Claim 5 (Original): The displacement gauge according to claim 2, wherein said objective lens scan portion has a cantilever connected to said objective lens.

Claim 6 (Original): The displacement gauge according to claim 1, wherein said objective lens scan portion moves said objective lens linearly.

Claim 7 (Original): The displacement gauge according to claim 1, wherein said displacement gauge further comprises an image pickup light receiving portion disposed on an optical path of reflected light from said measurement subject, and an image pickup monitor for forming an image of said measurement subject, based on a light reception signal detected by said image pickup light receiving portion, and displaying said image, in which the timing of picking up the image displayed on said image pickup monitor takes places at the moment when the light received amount of said light receiving portion is maximum by exciting said objective lens at a predetermined measuring point by said exciting portion.

Claim 8 (Original): A displacement gauge comprising:

a light emitting portion for emitting light to be projected onto a measurement subject;

an objective lens for receiving light emitted from said light emitting portion and projecting light onto said measurement subject;

an exciting portion for vibrating said objective lens along an optical axis of light passing through said objective lens at a preset amplitude;

a position detector for detecting the position of said objective lens that is moved in said optical axis direction;

a light diaphragm portion for passing a reflected light from said measurement subject;

a light receiving portion for receiving light passing through said light diaphragm portion;

a displacement operation portion for acquiring a detected position from said position detector at the moment when the light received amount of light received by said light receiving portion is maximum, and calculating the displacement on said measurement subject based on said detected position;

a measuring area specifying portion for specifying a measuring area that is an object of measurement on said measurement subject;

an objective lens scan portion for scanning said objective lens along a plane orthogonal to said optical axis direction in said measuring area specified by a measuring area specifying portion;

an objective lens movement detecting portion for detecting the position of said objective lens that is moved along said orthogonal plane by said objective lens scan portion;

an operation processing portion for calculating a distribution of displacement amount within said measuring area,

based on the positional information of said objective lens at plural measuring points within said measuring area, and the displacement amounts measured at said plural measuring points; and

an output portion for outputting the result of calculation by said operation processing portion.

Claim 9 (Original): The displacement gauge according to claim 8, wherein said objective lens scan portion scans said objective lens at a regular interval on a path or area specified on said measurement object, and said operation processing portion performs the arithmetical operation to display a profile of said measurement subject on said specified path or area by making continuous the displacement amount measured at each measuring point.

Claim 10 (Original): The displacement gauge according to claim 8, wherein said objective lens scan portion scans said objective lens at a regular interval on a path or area specified on said measurement object, and said operation processing portion performs the arithmetical operation to average the displacement amount measured at each measuring point to obtain the displacement amount on said specified path or area.

Claim 11 (Original): The displacement gauge according to claim 8, wherein said measuring area specifying portion sets up at least one of a scan width that is a range of moving said objective lens, a scan center that is a central position of movement, a scan period for periodically moving said objective lens, and a scan step that is a movement amount for each scan.

Claim 12 (Original): The displacement gauge according to claim 8, wherein said displacement gauge further comprises a collimator lens for converting light emitted from said light emitting portion into parallel light to be incident on said objective lens, in which said objective lens is moved in the direction perpendicular to the optical axis of parallel light from said collimator lens by said objective lens scan portion.

Claim 13 (Original): The displacement gauge according to claim 8, wherein said objective lens scan portion moves said objective lens to be vibrated at a preset amplitude around a predetermined position.

Claim 14 (Original): The displacement gauge according to claim 8, wherein said objective lens scan portion moves said objective lens in a circular arc.

Claim 15 (Original): The displacement gauge according to claim 14, wherein said objective lens scan portion includes a servo motor for moving said objective lens in a circular arc around a predetermined rotation axis, and said objective lens movement detecting portion includes a rotational angle sensor for detecting the rotational angle of said servo motor.

Claim 16 (Original): The displacement gauge according to claim 14, wherein said objective lens scan portion includes a voice coil for rotating said objective lens around a predetermined rotation axis, and said objective lens movement detecting portion includes a Hall element for detecting the movement of said voice coil.

Claim 17 (Original): The displacement gauge according to claim 14, wherein said objective lens scan portion has a cantilever connected to said objective lens.

Claim 18 (Original): The displacement gauge according to claim 8, wherein said objective lens scan portion moves said objective lens linearly.

Claim 19 (Original): The displacement gauge according to claim 8, wherein said displacement gauge further comprises an image pickup light receiving portion disposed on an optical path of reflected light from said measurement subject, and an image pickup monitor for forming an image of said measurement subject, based on a light reception signal detected by said image pickup light receiving portion, and displaying said image, in which the timing of picking up the image displayed on said image pickup monitor takes places at the moment when the light received amount of said light receiving portion is maximum by exciting said objective lens at a predetermined measuring point by said exciting portion.

Claim 20 (Original): A method for measuring a displacement on the surface of a measurement subject by receiving a reflected light of light projected onto said measurement subject, the method including:

a step of vibrating an objective lens, through which said light projected onto said measurement subject is passed, in an optical axis direction of light;

a step of detecting a position of said objective lens that is vibrated, said position being detected at the moment when the

light amount of reflected light from said measurement subject is maximum;

a step of calculating a displacement on the surface of said measurement subject based on the detected position;

a step of moving said objective lens in the direction orthogonal to the optical axis direction to move the measuring point on said measurement subject for which the displacement is calculated;

a step of measuring the displacement amount at said moved measuring point, and measuring the displacement amounts at plural measuring points; and

a step of calculating the two dimensional displacement regarding said measurement subject based on the displacement amount measured at each measuring point.